UNITED STATES DEPARTMENT OF ENERGY

DRAFT GLOBAL NUCLEAR ENERGY PARTNERSHIP (GNEP)

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)

EVENING MEETING - PUBLIC HEARING

OAK RIDGE, TENNESSEE

DECEMBER 2, 2008

JIMMIE JANE McCONNELL, CLA, CCR(TN)

MILLER & MILLER COURT REPORTERS

12804 Union Road

Knoxville, TN. 37934

Phone: 865-675-1471 / Fax: 865-675-6398

Email: JMccon3590@aol.com

TABLE OF CONTENTS

LIST OF SPEAKERS

INTRODUCTION

FACILITATOR MR. BARRY LAWSON

Good evening Ladies and Gentlemen. Welcome to the public meeting for the Programmatic Environmental Impact Statement (PEIS) for the Global Nuclear Energy Partnership (GNEP). This hearing is being held on the evening of December 2, 2008.

The National Environmental Policy requires the preparation of an Environment Impact Statement (EIS) for this project by the Department of Energy's Office of Nuclear Energy. Although the initial 2007 Scoping Process, in the meeting that was held here in Oak Ridge at that time, had specific aspects related to potential facilities and actual candidate locations, this Draft PEIS is only looking at seven options related to closed or open systems as general approaches without particular sites or projects. If site specific proposals are subsequently considered, there will be separate EIS's for those proposals.

My name is Barry Lawson and it is a pleasure for me to serve as the moderator for this hearing. My role is to insure that the hearing runs on schedule and that everyone has an opportunity to speak, who wishes to, of course.

I am not an employee of the Department of Energy nor am I an advocate for any party or position, and I ask your cooperation in making this a fair and respectful session.

I trust that you've had an opportunity to look over the displays during the open house, and at the registration table you should have received a hard copy of the presentation and it is a convenient place to take notes as the briefing goes through in a few minutes.

I understand somebody has some extra copies. Is there anybody here who did not get a copy of the presentation? Okay. Keep your hand up and Mike will bring some around to you. Great. Thanks.

There are three purposes for tonight's meeting and hearing. The first is to provide information on the content of the Draft Programmatic Environmental Impact Statement or PEIS and on the National Environmental Policy Act, NEPA, which governs the process.

The second is to answer the questions that you may have had on the proposed PEIS and on NEPA. And the third is to receive and record your formal comments on the Draft PEIS. The agenda for tonight's hearing reflects these purposes.

We will begin with a presentation by Daniel Stout, regarding the Draft Programmatic Environmental Impact Statement. Mr. Stout is the Director of Nuclear Fuel Recycling in the DOE's Office of Nuclear Energy.

To answer your questions both before and when we take a break, the project staff will continue to be

available throughout the hearing in the evening at the display tables and they can discuss the contents of the printed materials on those displays as well as Mr. Stout's presentation.

And following Mr. Stout we will recess for a short period so that we can set up for taking comments and that you may pursue further questions with the project staff at that time, if you wish.

By the way, for those of you who are unfamiliar with the facility, the restrooms are located out off the main hall. The ladies' rooms are on this side and the mens' rooms are down on that side over there.

Once we reconvene, I would ask you to please turn off your cell phones and pagers. The court reporter will be available at that time and we want to make sure she has a great opportunity to receive your comments accurately regarding the Draft PEIS. All your comments will be transcribed and made part of the permanent and official record.

Thank you very much. Right on que, almost.

I am pleased now to introduce to you Dan Stout. He will discuss the background of the project, the purpose, and the basic elements of the Draft PEIS document.

PRESENTATION BY DANIEL STOUT OMITTED

MR. LAWSON: Thank you, Mr. Stout.

Now we're going to take a few minutes before we start taking your comments to get appropriately set up and for me to get the list of people who would like to speak. You can simply stretch; and if you would like to ask some questions informally or even on the outside room, you can. I don't imagine we'll be more than five or six minutes and I will make an announcement when we are about to resume.

If you would like to make an oral comment tonight and you have not yet signed up at the registration table, I would ask you to do so, so that you can get on the official list of which I draw names to speak.

So this meeting is just recessed for about five or six minutes. Thank you.

(RECESS TAKEN)

MR. LAWSON: Okay, I'd like to get started in another minute or two, please.

Okay. It is now time to receive your formal comments on the proposed PEIS. This is your opportunity to let DOE know what you would like to see addressed that has not been or any other comments you'd like to make on the Draft document.

The court reporter will transcribe your statements, and our reporter tonight is Jimmie Jane McConnell, right over here.

Let me review just a few of the ground rules for

formal comments. These were listed on a sheet that was available to you when you arrived as well as on the large board outside.

I would ask you to please step to the microphone over here to the left when your name is called, introduce yourself providing an organizational affiliation where it's appropriate.

If you have a written version of your statement, please provide a copy to the court reporter or to me after you've completed your remarks. Also give us any additional attachments to your statement which you wish to have entered into the transcript. Each will be labeled and submitted for inclusion in the formal record.

I will call two or three names at a time, the first the current speaker and the others who are on deck. In view of the number people that I have signed up to speak at this time, I'm going to ask you to confine your public statements to five minutes. I will let you know when you have about a minute left. And as your time expires, I would ask you to conclude as gracefully and as quickly as possible.

Now, if you wish to add additional comments, you may do so either in written form to supplement your oral comment or you may return after all the original speakers or initial speakers have had their first opportunity to speak.

Mr. Stout will serve as the hearing officer for the

Department of Energy during the comment period. He will not be responding to any questions or comments during this session.

And it's in my discretion to call recesses from time to time as appropriate. As it has worked for me in the previous hearings, as soon as we've run out of our regular speakers, we'll probably call a recess for a short period of time in which others of you may wish to speak or there may be somebody else who comes who would like to speak. If we don't have any speakers after our 20- or 25-minute period we'll probably call a halt the proceedings.

Ms. McConnell, I haven't asked you this ahead of time. There may be some people who would prefer to give testimony privately; and, if we have a recess, would you be willing to take their private comments?

THE REPORTER: Absolutely.

MR. LAWSON: Okay. Thank you.

Okay. We're ready to go. Let's see. We have a list here and the first person on my list is Mayor Tom Beehan and he will be followed by a Frank von Hippel and Don Safer.

PUBLIC COMMENTS

MAYOR BEEHAN: My name is Tom Beehan. I am the mayor of the City of Oak Ridge, Tennessee. I am here on behalf of the City Council of the City of Oak Ridge; and I

would like to recognize in the audience the members of the council who are present: Councilman Charlie Hensley, Councilwoman Ellen Smith, and I don't think there's anyone else here, although this is a statement coming off a resolution that our city council passed.

On behalf of the Oak Ridge City Council and the Oak Ridge community, I want to thank the U.S. Department of Energy for sponsoring this meeting to solicit public comments regarding the Draft Global Nuclear Energy Partnership Programmatic Environment Impact Statement. I hope that's the last time I have to say that.

The City of Oak Ridge has been engaged in the GNEP program since its inception and more than two years ago when GNEP was introduce as a comprehensive strategy to reduce American dependence on fossil fuels, to improve the environment, and to further reduce the risk of nuclear proliferation.

In September 2006, the Oak Ridge City Council endorsed DOE's GNEP program, including the consideration of Oak Ridge as a suitable location for the facilities required to accomplish GNEP's objectives, and the performance of a detailed study of potential sites on the Oak Ridge Reservation.

The City Council also recommended the provision of funding for evaluation of City stakeholders' sentiments

about the presence of the GNEP facilities as part of a detailed site study.

In 2007 the Community Reuse Organization of East Tennessee, known as CROAT, received a grant from DOE to undertake a site analysis for a proposed GNEP facility in Oak Ridge. The City of Oak Ridge participated in the process to provide the input to the best possible impacts on the City including socioeconomic impacts, environmental impacts, and impacts to the City's utilities and other infrastructure.

Stakeholder input resulting from this process revealed overall community support for the GNEP objectives, and the DOC resources in Oak Ridge should play a significant role in meeting those objectives.

During the period, the City also participated in several meetings convened by the Energy Community Alliance -- the organization of communities that host DOE facilities across the nation -- to analyze the GNEP proposal. These communities are united in their belief that nuclear energy should represent a much larger component of the U.S. energy portfolio, and that a program to "close" the nuclear fuel cycle is a prudent economic investment.

With that as a background, DOE's current goal for the GNEP program have shifted from making decisions regarding the construction of specific facilities to moving

forward with a programmatic decision regarding the fuel cycle.

In the PEIS, DOE evaluates six domestic programmatic alternatives representing different closed nuclear fuel cycles. Although the agency has not yet proposed project-specific or site-specific actions to deploy or demonstrate that any one of the technologies, the PEIS establishes a good framework for a sound policy decision. This is the case for several reasons.

First, closing the nuclear fuel cycle will support domestic expansion of the nuclear energy production, thus reducing America's reliance on foreign sources.

The US Energy Information Administration (EIA) predicts that total electricity sales will increase by 29 percent by the year 2030. No one resource alone can meet that demand. The country needs a reliable mix that includes renewable energy, wind, solar, natural gas, coal, and nuclear. If we do not maintain a diverse energy portfolio, we risk overdependence on one resource as well as risking our energy security.

Second, the closing of the fuel cycle can potentially solve two problems long associated with nuclear power: the disposition of nuclear waste management and the risk of proliferation.

GNEP proposes to close the nuclear fuel cycle by

recycling used fuel and making some of the material that would have been disposed into a new reactor fuel. Advanced technologies for recycling nuclear fuel could reuse as much as 90 percent of the energy in a fuel rod.

Although past U.S. reprocessing of spent nuclear reactor fuel for dispensed proposed purposes and for management of commercial reactor fuel resulted in environmental problems, continued research and development and reprocessing technology gives confidence that future reprocessing can be done safely and efficiently.

Thus, a GNEP program could reduce the volume, thermal output, and/or toxicity of spent nuclear fuel or other waste requiring geological disposal. The PEIS also examines options such as the Reliable Fuel Services Program and the development of the grid-appropriate reactor that enhances U.S. nonproliferation goals.

Third, the research and development of advanced nuclear technologies can create and retain the type of green jobs that will support the 21st Century American workforce.

The International Atomic Energy Agency expects at least 60 new plants to be built worldwide in the next 15 years. In the U.S. industry is making plans to build more than 30 new reactors over the next decade creating between 1400 to 1800 jobs during construction and 400 to 700 permanent jobs once the plant is in operation.

In closing, the PEIS promotes sound solutions to energy problems that the nation should have the resolve to fix and not pass on to future generations. Oak Ridge has the perfect combination of proficient management, highly-skilled workforce, and advanced facilities that could support nuclear research and development as illustrated in the PIS.

The City of Oak Ridge commends DOE for its leadership in moving forward in this program.

Thank you very much for allowing me to speak.

MR. LAWSON: Thank you, sir.

Our next speaker will be Frank von Hippel to be followed by Don Safer and Eric Johnson.

MR. VON HIPPEL: I'm Frank von Hippel. I'm a nuclear physicist and I'm a professor of Public and International Affairs at Princeton University. I'm the U.S. the Co-chair of International Panel on Fissile Materials, and in 1993 and '94 I was the Assistant Director for National Security in the White House Office of Science and Technology.

So I have been involved in this debate over reprocessing for more than 30 years, including serving on the Advisory Committee to the DOE's predecessor agency, the ERDA, the Energy Research and Development Agency 31 years ago on their greater reactor review panel.

I have submitted a written statement which is footnoted. I also, just for people who want to know my views, more about my views, I published an article in the May issue of Scientific American and I'll be giving a talk tomorrow night at the University of Tennessee on this subject.

So I'd like to just summarize my comments, which are critical of the PEIS. I'd like to say first of all that the definition of a no-action alternative in the PEIS, which is the alternative that I prefer, is deceptive. In fact, the real no-action alternative today is interim dry-cast storage of older spent fuel on power-reactor sites. This leaves all options open.

Now I'd like to comment on the purposes of the DOE'S preferred alternative reprocessing as described in the PEIS. And according to the PEIS these purposes are: First, to support expansion of domestic nuclear energy production; second, to reduced the risks of nuclear proliferation; and, third, to reduce the impacts associated with the disposal of spent fuel. So I'm going to organize my comments -- I have organized my comments under these three headings.

First of all with regard to support of the expansion of domestic nuclear energy production. One key determinant of the expansion of domestic nuclear energy production will be its cost, as competing with other alternatives. However,

the PEIS contains no analysis of the economic impact of the DOE's proposed action to move the U.S. to a closed fuel cycle. Every analysis I've seen, including governmental analyses by the French and the Japanese governments, which have reprocessing programs, finds that going to a closed fuel cycle would increase the cost of nuclear power significantly and therefore reduce its competitiveness.

Now, with regard to the risks of nuclear proliferation, reducing the risks of nuclear proliferation, the U.S. decided to move away from encouraging reprocessing abroad in the 1970s after India used US-supplied reprocessing technology under a peace program to launch its nuclear-weapon program. And the Ford Administration learned to learn that Brazil, South Korea, and Pakistan were all pursuing -- were trying to purchase reprocessing plants for the same reason. All of those three countries had nuclear-weapons programs at the time.

Today the only non-weapon state that reprocesses its spent fuel is Japan. So the question is: What is the proliferation problem stemming from the once-through fuel cycle for which GNEP is the solution? We're not told because the PEIS does not contain a nonproliferation assessment.

The DOE's proposal to answer the proliferation problem is to say that we will do if other countries that

don't reprocessed -- non-weapons states -- want to reprocess their spent fuel reprocessing, we'll do it for them. We or other weapons states or Japan will do it for them.

But selling processing services, which is what we're talking about here, has been tried and failed already. At its peak one-third of the nuclear reactors in the world were sending their spent fuel to France, the U.K., and Russia for reprocessing. Virtually none of those countries have renewed their contract. The reason is that domestic politics in France and the U.K. and now increasingly in Russia has not allowed those countries to keep their reprocessing waste. So the result is that the countries went from the political problem of what to do with their spent fuel to the political problem of what to do with the reprocessing waste coming back from France and the U.K. and potentially from Russia. And spending a lot of money to do that.

Well, they did manage to kick-the-can down the road for ten years by sending their spent fuel out of country, but that ten years has been used up. And as I said, they have virtually none of them have renewed their contracts. So I don't think that will work either.

Now finally with regard to reducing the impacts associated with the disposal spent fuel. The PEIS does treat this discussion, this issue. But in a way which I

think is misleading.

In fact, the PEIS states that the radiation doses to both workers and the public would be increased by DOE's preferred alternative: reprocessing and transuranic recycle. In other words, the treatment throughout appears to give the reader the opposite impression. And I would just like to mention three examples.

The PEIS states that the radio-toxicity is not a regulatory standard relevant to disposal of spent fuel and high-level waste. But then goes on to use it, in fact, as a measure. In fact, the regulatory standard is the projected radiation doses of that part of the waste that might find its way to the Earth's surface from deeply guarded in the case of geological disposal.

Reprocessing and transuranic recycle would create numerous new waste streams that would, by the DOE's own calculations, cause higher radiation doses than deeply guarded high-level waste -- deeply guarded spent fuel.

The PEIS states that both the annual volume of spent fuel generated by the open fuel cycle alternative is much greater than that of the closed fuel cycle alternatives. However, if you look in the tables, the tables have large ranges for these volumes; and, in fact, with the upper bounds on these ranges being larger than the volume for spent fuel.

And, in fact, that I believe is based on the actual data from France which shows that reprocessing, as currently practiced in France, does not result in a significant reduction in package waste volumes or in the area required by geological waste repository.

Finally, the PEIS shows that the number of cancer fatalities among the public from the highest consequence accident in the nuclear fuel recycling center is a 100 cancer fatalities. This suggests to me that they have ignored the possibility of accidents involving the dispersal to the atmosphere of liquid high-level waste.

This actually happened in Russia's reprocessing center in 1957 and resulted in the evacuation on the order of a 100 villages. And it is a major concern -- the major concern of nuclear safety regulators in France and the U.K. Independent analyses have shown that the consequences could far exceed those of a Chernobyl-scale reactor accident for which the PEIS shows at about 40,000 cancer fatalities would result.

So that's a summary of my critical perspective on the PEIS and I urge you to improve it.

MR. LAWSON: Thank you, sir.

Our next speaker is Don Safer to be followed by Erik Johnson and Ralph Hutchison.

MR. SAFER: Like he said, I'm Don Safer. I'm from

Nashville. I'm Chairman of the Board of the Tennessee Environmental Council.

And I want to give a word of thanks to everybody that's attending here because this issue of nuclear energy is one that is getting precious little debate publicly. And it's something that has an impact on us, our children, our children's children, and future generations that is far greater than almost anything that we'll be doing; those of us who are alive today. And I think it's imperative that this debate come out in the open, it be just as vigorous as possible, that both sides can have their opportunities to state their cases. But it just needs to be out there in the public's eye. So I thank you, everybody, for attending whether you're for or against.

The issue to me, this Programmatic Environmental Impact Statement, it all revolves around radiation. And everybody has a different view, it seems; or there's many people with different views, or there's this side or that side. But the simple fact is it's a biological reality that radiation damages life on the planet as we know it.

We are living in a place on the evolution of the planet that radiation had been put away. Since the Big Bang, plutonium had decayed. And, you know, we have this neat little window where the radiation's not too high and it's not too low; and the Earth and the Sun are in

confluence; and we've got a great place to live.

Creating more high-level nuclear waste upsets that balance in a very fundamental way. And these radioactive elements, they get in the biosphere and they damage life on the planet. They damage life for many, many years. And it's to me the height of human arrogance to inflict these isotopes on future generations just so we can have ample electricity for the next however many years it's going be until we get to the real work which is to go carbon free, nuclear free.

It can be done. It's a simple lack of human imagination that we're not doing it. We should have gotten onto this 30 years ago when things were apparent. And times are wasting

This money that -- and I feel sort of like I'm Alice in Wonderland here, hearing how it doesn't cost very much and it's a good investment and it's not going to hurt you and it's so safe. The reality is just so different. And also that it's somehow good for addressing the climate change issue.

The whole nuclear fuel cycle is very labor and energy intensive. And it has left a trail of devastation in communities around this country and around the world, including Chernobyl; and a trial of workers that are ill, that are not being dealt with right. You've got a cleanup

here in Oak Ridge at this point that they're estimating is, what, around $10 billion and there's not even any money to do that.

There seems to be money to do this, but there's not money to cleanup what's already here and what's already polluting the environment. And so to go further into this and to unleash more in this reprocessing, this is the most illogical unthought-out attempt to address an issue by making it worse.

So I think, as I say, the resources here in Oak Ridge that have been put forth for the scientific resources, the human resources, need to be put into an all-out effort to go into renewables and in conjunction with the Tennessee Valley Authority. I wish the people in Oak Ridge and the people in the Tennessee Valley and the people at TVA would embrace this as the challenge of our lifetimes to get past our energy issues of today; put those behind us in a real way.

We're not putting them behind us if we go to uranium, which is another -- to call it sustainable as you did in the opening remarks is just totally inaccurate. It's not sustainable. There's not that much uranium on the planet. And the attempts to reprocess and refuel and go to fast reactors, all of those have proved hugely expensive and the cleanup at West Valley, New York is still a mess and not

being addressed in an adequate fashion. So we're just creating more messes at a time when we really need to get down to the business of figuring out, you know, how to make electricity without creating more problems for ourselves.

Back in the late '70s when the first round of nuclear construction was going on in the Tennessee Valley, John Goffman (phonic), I think it was him that said making electricity with nuclear energy is like cutting butter with a chainsaw. All you're doing is boiling water. There are factories of concentrated solar insulations being installed as we speak in the desert of North Africa. There's some being talked about for the desert southwest of the United States. They boil water the same way they used to use a magnifying glass to burn a hole in a piece of paper with the sun.

We need to work on our storage technologies, we need to work on our battery technologies, we need to work on fuel cells. All these things cost money. And this money that is intended to be spent on the Global Nuclear Energy Partnership or any expansion of nuclear power absolutely has to go to true renewables that future generations will thank us for rather than curse us for.

Thank you.

MR. LAWSON: Thank you, Mr. Safer.

Our next speaker is Erik Johnson to be followed by

Ralph Hutchison and Mary Olson.

MR. JOHNSON: My name is Eric Johnson and I live in Maryville. I'm a father of five children with my wife and three grandchildren. And I come to speak on their behalf. I have prepared remarks. I count it a privilege of being able to follow the last two speakers.

Tonight I come to denounce as irresponsible, dangerous, and immoral the Department of Energy propose GNEP program with its aim to reprocess spent nuclear fuel for use in commercial power reactors in our own country and around the world. It is my belief that any evaluation of this proposal before us should be based on a highly evolved sensitivity to what contributes to the general good of our world and what on the contrary limits, threatens, and destroys it.

My friends, we live the ever-changing, developing, growing, existing world full of color and growth and wonder; and the power of renewable season by season, a world full of life of leaves and ferns and rhododendrons and trees with nuts and fruits and berries; flowers of every imaginable hue and shades growing always new and fresh replenishing themselves continuously reaching out to the elements of wind and sun and rain and snow; daisies and great redwoods and thistles and ponderosa pines and pin oaks and red oaks; spinach and kale and pumpkins and poison ivy tumbleweed and

seaweed, moss on the rocks in the forests, and mountain streams and swamps; ferns and hemlocks; every kind of running and crawling and swimming and flying and jumping critters; the great blue whale, the kangaroo, the hippopotamus, the lady bugs, the mosquitos, the red-cheeked salamanders, the eagles, the cardinals, and the bees scampering, galloping, darting, and soaring.

And I invite you, my friends to imagine these and other numberless beings in this room tonight with us insisting that we protect them and their habitats from all threats of harm that this proposed GNEP program entails.

And human life too. Imagine, if you will with me, over 6 billion people who are our sisters and our brothers from the continents of our amazing and disturbed world pressed in among us with their urgent appeal to end this threatening plan against life shared on this planet.

Imagine, too, my friends all the people who were critically affected by accidents of nuclear power plants in other times and other places, many who are dead: the Chalk River, the Greifswald, the Three Mile Island, the Chernobyl, the Monju, and the Tokaimura, among others.

This proposed plan GNEP for nuclear waste reprocessing, especially the fast reactors envision, only serve to escalate the danger of wide and long-term implication of the well-being of human and non-human life

and to increase the probability and the danger of nuclear accidents.

The current Draft PEIS for the GNEP does not include either our concern for the safeguarding of the environment and all life intertwined across the world or our insistence that it recognizes that nuclear power plants and nuclear fuel program catastrophes are likely to happen. After decades and billions of dollars, the United States still is not able to store safely nuclear waste, which stays highly radioactive for thousands upon thousands of years.

Also excluded from the Draft for the proposed GNEP is an evaluation of nuclear proliferation, because of the expansion of new plants here and worldwide and the rare possibilities of acts of terrorism upon these nuclear plants and processing facilities for the seizure of plutonium and uranium for nuclear weapons drastically increases the risk of nuclear terrorism.

Proceeding full-steam ahead with this program fuels the nuclear arms race at a time when we should fulfill our pledge to disarm through the nonproliferation treaty that we signed decades ago.

Tonight I argue for a moral responsibility; that we need to possess a deepening sense of accountability for all the resources and power and position entrusted to us as citizens of a global community and members of the world of

creatures and wind and fire and water. We need to bury this proposal away and claim our right to a national and global security which is centered on peace and justice on the healing of the Earth.

Thank you.

MR. LAWSON: Thank you, sir.

Our next speaker is Ralph Hutchison to be followed by Mary Olson and Brita Clark.

MR. HUTCHISON: Thank you, Barry.

My name is Ralph Hutchison. I am a coordinator of the Oak Ridge Environmental Peace Alliance (OREPA), an organization of more than 3,000 members. Over the past 20 years, OREPA's expertise has typically been in the arena of weapons policy and activity. In the course of our work we've had a lot of experience with the National Environmental Policy Act. Our comments tonight will focus on those two areas.

First, I want to note that the Draft is remarkable. I have not read one like it in 20 years of reading Environmental Impact Statements.

Why are you releasing a Draft that does not indicate a preferred alternative? NEPA's regulations require you to do that, as you acknowledge yourself. This a quote from the end of the summary: "The Council on Environmental Quality regulations require an agency to identify its preferred

alternative or alternatives, if one or more exists, in a Draft Environmental Impact Statement. DOE has not determined which of the specific closed fuel cycle alternatives is preferred, but will do so in the Final PEIS."

Why are there no dollars signs in the Draft PEIS? This is the first, to my memory, Environmental Impact Statement I've read without an analyses of socioeconomic factors. I realize we live in a bizarre economic world right now with the United States and global economies teetering on the brink of collapse. Our government prints money in a fantastically dangerous gamble and the Treasury Department hands out hundreds of billions of dollars to the very people who constructed the "house of cards," our president's own words. Not a penny is going to the people whose lives of retirement and security are evaporating before their eyes.

So I can understand how you might imagine this harebrained scheme; a plan that would require an already more than bankrupt economy to print up several hundred billion more dollars to hand out to corporations on mere speculation about energy demand, which is already being adjusted dramatically downward as the plummeting price of oil demonstrates. I can imagine bureaucrats sitting in Washington, D.C. thinking there aren't any rules anymore.

Let's just do it. But you have to include financial calculations and socioeconomic concerns in the Draft PEIS, not just the Final.

OREPA's chief concern with the GNEP proposal is the increased risk of proliferation inherent in the separation of plutonium from spent fuel and the creation of a plutonium economy. Proliferation is not just one more issue among many. It is, in the words of the NNSA, and I quote: "one of the gravest threats the United States and the international community face."

Proliferation concerns are addressed in the Draft PEIS with a shovel pass. This is the quote from your document: "Separate from the GNEP PEIS, the National Nuclear Security Administration is preparing an assessment of the nonproliferation aspects of the programmatic alternatives addressed (sic) in this GNEP PEIS. The Draft assessment is expected to be publicly available in the same timeframe as this Draft GNEP PEIS."

I have been unable to find any reference to this assessment on the NNSA's site or any link to it from the GNEP site, didn't see out there on the tables outside, and we're more than halfway through the comment period. It is apparently not publicly available in the same timeframe as the Draft GNEP PEIS.

So why is the Draft being published before the

accompanying analysis relating to one of the most critical aspects of the program has been prepared?

The GNEP PEIS also concludes with a remarkable parking lot of items under the headings: Unavoidable Adverse Impacts; Irreversible and Irretrievable Resource Commitments; and Issues to be Resolved.

These are remarkable for their duplicity. Of course, unavoidable adverse impacts can be avoidable. Don't build a new generation of reactors or a reprocessing plant. An irreversible and irretrievable resource commitment -- "can't be helped," they said with a shrug -- can be avoided by that same trick. Don't do it. A real discussion of irreversible irretrievable resource commitments would have to have included some of those missing dollars signs.

The third category we have, Issues to be Resolved, is just a blunt admission that you have not dealt with all the issues a Draft PEIS should include before it comes out to the public for comment. That's the purpose of a Draft.

I realized as I prepared my remarks for tonight that this an exercise in futility for most of us and really it's an insult to the public, as if our time is worth nothing, because you have to take your document back and prepare a complete Draft; you have to bring it back to the public for comment. If you have the stomach for it and if you can muster the political backing in the Obama Administration.

But that, finally, is the reason this half-finished partial analysis of a Global Nuclear Energy Partnership is being rushed out for public comment now.

I was in Albuquerque, New Mexico in 2001, in the early days of the Bush Administration, and I heard the insiders at the Nuclear Decision-Makers Forum talk of the needed to -- and this is a quote -- "take advantage of the window of opportunity provided by the Bush Administration."

That is what these Draft document is trying to do. That's why the public has been summoned to comment now instead of waiting until you can show us some numbers, provide us with persuasive statement of need based on current estimates and not out-of-date energy usage calculations that have already been proven wrong, and show us the proliferation analysis prepared by the NNSA.

In 20 years of looking at NEPA documents I've never seen one as pathetic as this. And I've seen some doozies. The GNEP may have started out as a sincere effort to expand nuclear power around the globe to meet rising needs and at the same time to prevent proliferation. But these two goals stood then in opposition and they still are. And the rising energy needs have fallen. With them, the only possible rationale for the GNEP fell too.

What we're left with is a paper process designed to hand out taxpayer money to a declining nuclear industry; a

bailout we cannot afford and do not need to undertake, and a feeble attempt to come up with a technical fix for the problem of nuclear waste. A fix that looks no better now than it did in the 1970s when we gave up on it.

Look, even the benefits of the GNEP are surrounded by caveats and disclaimers in this Draft. We are left -- the public is left to have to do the cost benefit analysis ourselves. Fortunately, it's not that hard.

The costs -- in dollars, in environmental and health risks, and in increased proliferation threats -- far outweigh any conceivable advantages.

MR. LAWSON: Thank you, sir.

Our next speaker is Mary Olson. And Ms. Olson will be followed by Brita Clark and Lewis Patrie.

MS. OLSON: One wants to applaud. And in the younger generation they do this (Demonstrating). So I'm going to twinkle at you Ralph.

My name is Mary Olson. I am the Southeast Regional Coordinator for Nuclear Information and Resource Service. We're an organization in our 30th year founded by people who did not want nuclear power plants in their communities. And once we helped to stop -- well, 98 were officially cancelled but there were several hundred more that were being talked about. So, yeah, there's only 104 operable. They're not all operating. Anyway, our members are in all 50 states and

many of them helped to shutdown reactors. A 120 were built and 104 operable today.

And so I'm here tonight to point out that this document doesn't really evaluate the first question, which is whether we should or not should not expand nuclear power in the United States.

I was struck by the statement that the DOE mission would be considered in the decision. What about the Constitution? And our young people are looking more and more and more to the Declaration of Independence. There are fundamental issues that must be addressed. And I want to very much appreciate Dr. von Hippel's travel and his statement, and underscore that when you talk about the mission you have to go back to the early decisions made.

There was no office of recycle of nuclear materials until the current administration for very big and important reasons called: India went nuclear. And they weren't part of the nonproliferation treaty and how are they going to do global non-nuclear proliferation while trying to, quote/unquote, "expand our complex."

So I just want to complement the writers of this document for a moment. I think you must have been in the same school with my mother who was a very wise woman. When it came to bedtime, we were not offered the alternative of whether to go to bed or not. We were offered: Do we want

to wear our pajamas or our nightgown?

And so in this document we are not offered the question: Should we expand nuclear power or not? We are offered six different alternatives: the pajamas, the nightgown, the toga, the swimsuit, the whatever.

I'd like to point out, however, that there is one theme that runs through it all of these alternatives. And I believe a real socioeconomic evaluation has to be applied to this one theme. And interestingly enough, true to this current outgoing administration, it is the one thing that you say you're not doing. But every single one of these alternatives involves moving irradiated fuel off of commercial nuclear power plant sites to a single site and you acknowledge that it is storage. So that is the one common current theme throughout.

But you in none of the other official documents that I have read on this issue look at the socioeconomic impact of taking the most deadly, dangerous, and concentrated byproduct of this society and sticking it inside one single congressional district in a representative democracy that relies on an annual appropriation cycle for federal money to be spent.

You are actually working on the behalf of 434 congressional districts and I expect you to own up to that fact. We can't have real debate about what this future is

unless you get down to the dirty brass tactics of dumping this waste on a single community. And you know it has not been done and you know it can't be done without the kind of storyline that distracts everybody: big scarves, white doves, big flowers. And underneath all that the magician's hands are moving.

And what is moving? The liability off of the commercial balance sheets of the corporations that profited by making this waste while you pursue a program to expand the ability to make more waste. You don't solve a problem by expanding its production.

So you've got this great storyline about your six alternatives. None of which has to do with solving the real problem, which is to stop producing any more of this waste.

We bill be submitting formal comments. I want to add a couple more little laundry list items, but that is the fundamental point.

Okay. Allow me to list just this, because I may forget them later.

How are you going to reuse the uranium without doing what you did at Paducah? A lot of people died needlessly because of the, quote/unquote, "recycle of already reprocessed uranium," not telling anybody that you're putting fission products into Paducah. How are you going to get around that?

When you look at transport, you never once have looked at the environmental justice implications of the people who live closest to the highways and the rail lines. You need to do that.

You assume that there are benefits to the closed cycle. You don't take all the other categories and talk about the non-benefits.

And finally, nuclear power is not carbon neutral. Nuclear power relies on fossil fuel. If we are going to socially invest in a solution to climate change, if we're going to do that, it better be one that can serve the problem. Nuclear and everything in its program is well beyond the time limit that we need to address carbon emissions in. We need to be immediately instituting institutional systematic efficiency programs, putting massive amounts of leeway into the development of wind; and if we're going to put money into any technology, put it into solar.

So my final comment is that if you're going to file in the future -- at some date after reviewing my colleagues complaints with the document -- a finding of no significant impact on a technology which Dr. von Hippel has told us tonight has accident potential that could exceed the largest single environmental impact that this species has made on this planet we can have lots of spitting matches. But

Chernobyl is right up there. The radiological release exceeded all of the atmospheric nuclear weapons test combined. So with that one single reactor release, with all the nuclear weapons tests combined plus, and now we're talking about the potential for an accident is plus that.

The word "Fonzi" will force you in all kinds of ways. Because I just don't think it's going to fly. So take the time, listen to us, hear us, and choose a positive future.

Thank you.

MR. LAWSON: Thank you.

Our next speaker is Brita Clark. Ms. Clark will be followed by Lewis Patrie and Jenny Freeman.

MS. CLARK: I really don't think one needs to say much beyond what was just heard.

However, I just have one comment I wanted to make having to do with the issue of the transfer of nuclear fuel. And I feel that the communities that are along this proposed fuel route should be part of this process; that there should be public hearings held in those communities along all the routes. Maybe it's just a question. I don't know how you have a PEIS that's not site specific. It just seems like an odd exercise.

But that's it.

MR. LAWSON: Thank you, ma'am.

Our next speaker is Lewis Patrie who will be followed by Jenny Freeman and Susan Gawarecki.

MR. PATRIE: I am Dr. Lewis Patrie, the Chair of Western North Carolina Physicians for Social Responsibility. And I have comments which have to do with the issues that have been brought up before: the horrendous issue of the economy, the horrendous issue of nuclear proliferation, and the horrendous issue of the environment.

The cost estimates of this program are not part of the PEIS. They very much should be and must be. My comments go further into that issue.

They ask, in addition to what I've submitted, how does the economic benefit from this proposed GNEP in terms of battling needed employment opportunities compare with a determined and massive effort at conservation and really renewable resources of which nuclear power is definitely not one of them?

MR. LAWSON: Dr. Patrie, could I ask you to step back or push the microphone a little further away from you.

DR. PATRIE: Conservation and renewable energy, especially solar and wind and others that are in the process, have made a definite impact in many countries of the world. And the various powers that be in our country have failed to utilize those technologies to the extent that they would be worthwhile.

On the issue of proliferation, reprocessing will make nuclear bomb material more vulnerable to threat, theft, and attack. But there is no analysis in this Draft PEIS. The DOE has stated that NNSA is preparing an assessment of the proliferation risks. But over one month after releasing the PEIS and after public hearings have already begun on this, this analysis remains unavailable. The public must be able to comment on this analysis, and those comments must be considered part of a PEIS.

Moving into the area of the environment I have a couple of comments which are not part of what I submitted formally.

From these sources how is it -- how isn't it possible for this Programmatic Environmental Impact Statement to completely ignore a carbon footprint of the reactor cycle from mining through enrichment fuel fabrication and the introduction of fuel into the reactors by the processes involved in the management of spent nuclear fuel and decommissioning of reactors being retired? This has been brought up by others, but I think it needs to be addressed.

How does the economic benefit from this proposed GNEP, in terms of badly needed employment opportunities, compare with a determined and massive effort at conservation and through two of your remarkable resources as I mentioned

before?

Does this proposal speculate on how rapidly human beings will be able to evolve, as humans are gradually and globally exposed to the ever increasing human-caused radiation exposures from these sources that are proposed in this PEIS on top of all the other exposures that had been gradually created through nuclear weapons testing as well as through nuclear reactors boiling water to make energy?

Does the Department of Energy assume that the disposal of nuclear waste will eventually just go away? How will reprocessing solve our country's nuclear waste problem? Reprocessing will not eliminate the need for a geological repository and will increase the amount of waste to be in managed either geologically, on site, or elsewhere.

Even in the best case scenario, DOE would store the most hazardous radioactive materials at the reprocessing facility for hundreds of years while they decay. Other long-lived waste from reprocessing will be dangerous for tens of thousands of years and will require geologic storage. There is currently no licensed site in the whole United States for geologic storage, so the waste will have to remain on-site until or unless other means are worked out.

With the many examples of environmental devastation caused by reprocessing high-level radioactive waste in

France, the United Kingdom, and the United States, how is it possible for our nation to justify proceeding on such a course of action when concerted actions aimed at conservation and truly renewable resources are less costly, more consistent with a sustainable planet, and will not produce nuclear weapons proliferation and the use of fissile materials by terrorists?

MR. LAWSON: Thank you.

I call on Jenny Freeman who will be followed by Susan Gawarecki and Parker Hardy.

MS. FREEMAN: Thank you for the opportunity. I am Jenny Freeman. I'm on the board of the Energy, Technology and Environmental Business Association. ETEBA is the acronym. And I would like to thank you for the opportunity to comment tonight on the GNEP PEIS.

ETEBA is an organization comprised of about two large and small companies located primarily here in Oak Ridge but extending throughout the nation. Our companies employee about 5,000 people. We have about a billion dollar impact on the economy of Tennessee and every day we send workers out into the nuclear industry.

Our companies' capabilities include everything from safely characterizing and shipping waste to WIPP and Nevada test sites, to records management, to waste minimization and pollution prevention, to nuclear operations, to designing

and constructing nuclear reactors safely and securely, to the security aspects of the nuclear industry. We've been doing this for 20 or 30 years and I'm here to represent those companies.

The ETEBA supports the programmatic assumptions that nuclear power production should be increased to meet worldwide energy demands projected to increase 40 percent by 2030.

While research and expanded use of renewable energy increased energy efficiency and clean coal technology should continue, these alone cannot reliably and cost effectively produce energy to meet our nation's growing needs. Nuclear power is carbon free and can be produced in massive quantities but we need to resolve the spent fuel waste issue.

Using the national as well as a global perspective, ETEBA supports a closed fuel cycle approach to generate nuclear energy because spent fuel recycling has the capability to improve the environment around the world. It will dramatically reduce a generation of nuclear waste overall and will eliminate the needs for permanent disposal.

It is difficult to say, however, which specific closed fuel alternative is the best choice because there are still so many unknowns, including life-cycle costs. ETEBA believes this issue is of vital importance to the nation and

adequate funding should be available to fully research all alternatives in order to select one that balances generation capacity with capital generation and waste costs.

We support continuation of the advanced fuel cycle initiative in hopes that this research will provide information to make a more informed decision on the specific approach and alternatives to be pursued.

We're not in favor of abandoning light-water reactor production capabilities in which the U.S. nuclear industry has years of experience for a wholesale change to Heavy Water Reactors or High Temperature Gas-Cooled Reactors as presented in alternative six.

Both the Fact Reactor Alternative and the Thermal/Fast Reactor Recycle Alternative appear to have the greatest potential for large reductions in the toxicity and heat load of remaining spent fuel compared to any of the other closed or open fuel cycles.

And, finally, ETEBA believes that the Oak Ridge Reservation has many benefits as a potential site for one or more of the GNEP facilities. Oak Ridge has been the leader in spent fuel reprocessing research and development for 60 years. The DOE facilities at Oak Ridge represent a $5 billion strategic nuclear energy asset. Current capabilities are an outgrowth of Oak Ridge's original mission. So they have the culture, knowledge, and

experience to safely handle nuclear operations.

Oak Ridge has extensive expertise and experience in reactor system design and analysis as well as design, construction, and operation of large scale nuclear fuel reprocessing equipment. It is strategically located to support the nation's nuclear renaissance, since the majority of operating and proposed nuclear power plants, nuclear generating companies, and nuclear suppliers are in the southeast.

We'll submit these comments to Mr. Schwartz. And again I appreciate the opportunity to participate in this public hearing.

Thank you.

MR. LAWSON: Thank you very much.

Okay. The next speaker is Susan Gawarecki. And then Parker Hardy and Ellen Smith.

MS. GAWARECKI: I'm Susan Gawarecki. I'm Executive Director of the Oak Ridge Reservation Local Oversight Committee. We represent the interests and the concerns of the seven surrounding and downstream communities of the Oak Ridge Reservation and the City of Oak Ridge, and look carefully at how they feel and what the direction they think that the operations in Oak Ridge should be going.

In general my board of directors has been supportive of the goals of GNEP and we will be submitting formal

comments prior to the end of the comment period. But I wanted to say a few words personally about this.

I appreciate hearing the comments tonight and I want to offer a different perspective. I am an environmentalist myself. And when I first started this job I had many reservations about nuclear power and the nuclear industry. But as I began to study the issues and learn the facts, I found that, true, nuclear power has some potential for harm and also impacts on the environment. But what you have to evaluate that against are the impacts that the other forms of power generation also has.

And the truth of the matter is that nuclear energy is a very concentrated form of energy that is the only way to support the continued energy needs of this country by having a stable base load. You can't do that with renewables.

Renewables don't give you peak power demands on the hottest days or the coldest nights of the year. They will not support growing industrial production. They will enhance it and help in many ways, but there is just not enough capacity in renewables to replace, to begin to replace, nuclear energy and coal energy.

I have become very much an opponent of coal after seeing the environmental devastation of the mining and the health affects of the emissions. There is a so-called clean

coal technology, but I have not seen any evidence that it can capture carbon, that it completely eliminate particulate and polluting emissions. And there still also always the leftover ash, which is full of toxic metals itself.

Coal burning releases mercury to the atmosphere, it releases uranium and thorium and radionuclides with a much, much bigger exposure than anything released from a routinely operating nuclear power plant.

The lifetime waste, if your energy needs were completely by nuclear, would be about the size of a lipstick. If it were completely met by coal, it would be over a ton of ash plus everything that went into the atmosphere.

Coal emission kills people. The EPA has estimated it kills people with respiratory problems, kills elderly people with health problems, the particulates cause heart disease. And I think you have to compare this against the estimated projected 20 here down the road, maybe, cancer deaths from here. We're talking about real deaths from coal and coal mining. Not to mention when you add scrubbers to a coal plant, what you're also adding are truckloads or trainloads full of highly toxic ammonia coming through your communities every day.

I think you have to look at the big picture when you look at nuclear. There is no energy source without impacts.

Renewables have a large ecological footprint. Wind energy kills birds and bats, solar energy covers up a lot of ground, and often the best sites are far from where the energy demand is, and a lot of energy is lost in transmission lines. You have to take that into account.

The reason I personally support the recycling of the nuclear waste is that it diminishes the mining of the uranium which in itself has a terrible impact on the local environment due to the tailings and due to the milling process. They're still struggling with how to cleanup enormous amounts of that out West.

So you have to, again, look at the big picture. Concentrate your uranium operations in a few areas and do it diligently and use the new technologies to ensure you don't have releases.

Again, the nuclear reactors. There are new technologies out there. Everybody talks about Chernobyl. The U.S. doesn't have any reactors of the Chernobyl style. And that's extremely dangerous reactor without any containment. It's not where we are in this country and it's not where we're going.

So personally I think that there's a lot of good reasons to support nuclear power as a mix of the energy. It's not going to be right for everywhere, but it is going to be necessary to help us keep a base load. I think we

need to understand, as far as the rest of the world goes, the one major attribute which enables people to live longer healthier lives is electricity.

And with the carbon emissions concerns we have, we're going to have to find a way to provide safe nuclear energy to the rest of the world so their quality of life can be improved as well.

Thank you for the opportunity to make these comments. And, as I said, the organization will submit formal comments on the PEIS.

MR. LAWSON: Thank you.

The next speaker is Parker Hardy to be followed by Ellen Smith and W.E. Tewes.

MR. HARDY: Thank you very much. My name is Parker Hardy. I'm the President of the Oak Ridge Chamber of Commerce that's an association of almost 700 businesses and companies focused on enhancing this community's economic vitality. I'm also a 12-year resident of the City of Oak Ridge.

In 2007 our Chamber communicated a policy to you that supported the prompt completion of the GNEP PEIS. We stated then and we will restate now that the expansion of this nation's nuclear energy capacity accompanied by closing the fuel cycle, if that does include reprocessing, will benefit America.

Oak Ridge enterprises, public and private, can contribute much of the expertise, much of the technology, needed to solve both the science and waste issues. We urge you to take advantage of that expertise, to take advantage of this community's resources and our talent pool. We urge you to take advantage of Oak Ridge assets by positioning Oak Ridge as a focal point for GNEP related research and appropriate projects.

Thank you.

MR. LAWSON: Thank you, Mr. Hardy.

Our next speaker is Ellen Smith who will be followed by Linda Modica.

MS. SMITH: Hi. I'm Ellen Smith and I'm a resident Oak Ridge. I'm affiliated with several different entities, some of which have spoken to you already tonight. I'm speaking on my own behalf, but I should declare I am a member of Oak Ridge City Council. Our mayor has already spoken on the City Council's position. And I serve on the board of the local oversight committee that Susan Gawarecki serves as chair of, and she has also spoken tonight. But my comments are just my own.

As you heard, Oak Ridgers believe in nuclear energy and as a community are optimistic about the technologies addressed in the Programmatic EIS -- PEIS. We want to play a role in implementing this technology in the future.

Nuclear power clearly must play a role in the future energy mix, particularly to achieve the needed reduction in greenhouse gas emissions that I believe this country must achieve in coming years. There is no single silver bullet. We can't do it with just wind. We can't do it with just solar. We can't do it with just energy efficiency. We can't do it with just nuclear. We can't do it with just carbon sequestration. We need to do everything we can and all of those technologies will play a part in achieving that result.

Regarding the Programmatic PEIS -- the Programmatic EIS, excuse me, I appreciate the fact that the DOE has changed direction since the scoping for this document and is now taking a look at technology pathways rather than purely looking at an investment in specific new facilities to implement one particular technology. I think that the analysis of technology pathways is far more likely to achieve a successful result than an early investment in specific facilities to implement a particular goal.

And I don't intend to comment on the specific technologies. I have some preferences and negatives looking through the Programmatic EIS, but I would like to make specific comments about the analysis provided in the Programmatic document; a few things that concern me.

The first has to do with nuclear proliferation.

Many of us in this community where we live and breath nuclear energy are familiar with the concept that reduction of proliferation risk relies on the presence of highly radioactive fission products in spent fuel to prevent that fuel from being diverted for use in nuclear weapons. That's because fission products are frankly very dangerous and it makes it hard to get the plutonium with the fission products present.

DOE's public documents regarding this GNEP program need to convincingly explain to the public why it is that fuel cycles based on mixed transuranic radionuclides in fuel -- including plutonium but not including the fission products and other highly radioactive materials that would be removed to make that fuel -- why that fuel cycle will not contribute to the proliferation risk. It's not obvious. And as others have asked tonight we need to see the nonproliferation study and it needs to be understandable and clearly communicate something that's a mystery to many in the public.

Second concern and it's really observation that goes beyond this Programmatic EIS. Reading this PEIS underlines for me the misleading nature of the U.S. classification system for radioactive waste. The PIS projects that some of the new technologies, other than the No Action Alternative, would generate large amounts of greater than Class-C

low-level waste in addition to smaller amounts of nuclear spent fuel waste and high-level waste required disposal.

I think readers are encouraged to think that the generation of grading the Class-C low-level waste is a fairly inconsequential impact because it's called low-level waste. But there's a problem that in the United States low-level essentially means not otherwise classified, not in the way it's specified, in that high-level waste refers to the way the waste was generated and not what its radioactivity is. The reality is that grading Class-C low-level waste is very highly radioactive waste.

And if nothing else, as part of the GNEP program, I'd like DOE to push for a waste classification that's actually based on the hazard of the waste and not on almost extraneous details, so that the name of the waste will actually convey meaningful information to people.

Third comment, again, back to the analysis in the EIS. I'm bothered in reading the comparative analysis of accident risks. It's not an apples-to-apples comparison, but it's a comparison of apples and oranges and probably some pickup trucks as well.

The problem is DOE laudably tried not to reinvent the wheel in this analysis in that the Department has used or has borrowed analyses of probabilities and consequences of accidents from a variety of other reports that were

prepared at different times for different purposes and made underlying basic assumptions.

Further, some of the reports evaluated what now would be considered old technology. For example, there's a 1982 study of the Clinch River Breeder Reactor as the basis for some of the analyses in this document. There's a 1990 study of conventional light-water technology. Dr. von Hippel has spoken about the problems that occurred, serious accidents that occurred, starkly with recycling.

But in this document it appears that the recycling technology that was used is soon to be something fairly benign with less accident risks than some people might infer. I don't know what the right numbers with the right accident results of what these different technologies are.

But after reading this I came away unconvinced of that I was seeing a realistic comparison across the technologies. I can't tell what the accident risks in the different technologies have with this because I'm reasonably sure that the older technology is analyzed; for example, for both the breeder reactor and the light-water reactor are not the technologies to be implemented decades in the future.

And I'd like to ask in finalizing this EIS DOE either provide an apples-to-apples comparison of accidents or provide an extremely forthright explanation why those numbers can't be used to compare the technology.

I appreciate the opportunity to talk about this document. And on to the next person.

MR. LAWSON: Thank you very much.

W.E. Tewes is the next speaker to be followed by Linda Modica and then Don Richardson.

MR. TEWES: I'm Bill Tewes. I have been involved in nuclear energy since January 31st of 1944 when I was transferred from the Army Special Engineer Detachment -- or to the Army Special Engineer Detachment at Columbia University. I've worked for my entire professional career first at K-25 where I was instrumental in improving barrier quality. And I didn't work on it personally, but I observed the work that was done here in Oak Ridge on the recycling of spent nuclear fuel. And I am very disappointed in the entire GNEP process.

I think that first we should concentrate on developing our own national recycle process. The reason is that we recycle spent fuel in a DOE controlled secure plant then we eliminate the entire question of proliferation and we now place ourself in a position where we aren't reliant on the stage of development of fast reactors. We can, using the technology of the 1960s and from X-10 who demonstrated the canning and declassing and K-25 who demonstrated separation on a cold basis, separation of fission products from plutonium from slightly used but upgradable uranium, we

would be in a position to immediately use geologic storage of the fission products which are the worst factors. We could wait and store the plutonium much as we store the weapons-grade plutonium today in a secure location and reuse the uranium.

So I was going to emphasize that I think you're on the wrong track by trying to involve the whole world before you have done it yourself.

MR. LAWSON: Thank you, Mr. Tewes.

Our next speaker is Linda Monica followed by Don Richardson.

And actually, before you start, I do have one other speaker Robert Kennedy. And after Mr. Kennedy, who is the last person on my list, we will take a recess.

MS. MODICA: Thank you. It is correct that I am Linda Modica and the Chair of the National Sierra Club's Radiation Committee, which will be providing written comments.

So tonight, on behalf of my family and as a taxpayer and as an economics formerly working on multi-national corporation transfer pricing problems that the Internal Revenue Service addressed a number of years ago, I'd like to make some comments as an individual. And I also want to make these comments as a neighbor of a nuclear facility further east in Tennessee called Nuclear Fuel Services and

on behalf of the Early Citizens Awareness Network, members of which couldn't attend tonight.

First I'd like to ask for an extension of the time period for commenting. And also for a -- and this is very similar to what I had requested when we did the Complex Transformation hearings; that they be held in more places around the country because surely an expansion of nuclear power in the states will affect many more communities than the dozen or so where these hearings have been held.

So we invite you to East Tennessee and come down to Erwin where I'm sure that the residents who live in that nuclear neighborhood would love to tell you -- give you the ground truth with respect to the hypothetical accident scenarios that you addressed in the Draft PEIS.

And on that point, I would -- we won't necessarily be able to submit quantities of radionuclides that were released in the case of Nuclear Fuel Services in Erwin over its 50-year history, but we will be able to provide you with the data that indicates a far higher probability of accidents than was addressed in the Draft PEIS.

And the other issue relative to that point, on top of the probability of accidents, is that the entire fuel cycle needs to be considered when the cumulative impacts are being calculated. So both the quantity and the probability of accidents needs to be, I think, better studied in the

Draft.

And I thank Reverend Ralph, who happens to be on the other side of the counter right now, for his insightful comments. It really behooves, I believe, the DOE to go back to the drawing board and present a better more detailed analysis of all the impacts.

Intangibles are what I used to work on for the Internal Revenue Service. And those intangible costs, in terms of our health and our safety, need to be better addressed whenever we're talking about any of the power-producing technologies but especially with respect to nuclear.

Because as I like to consider radiation, or don't like to consider it but I do consider it, a perfect pollutant which cannot be seen usually unless it's coupled with yellow smoke coming out of the fire of the roof or the incineration system at a nuclear facility. So it can't be seen. It can't be felt. It can't be tasted, usually. It can't be touched unless it happens to be hot thermally. You wouldn't know it's there.

So this perfect pollutant needs a specially insightful analysis, I believe, in order to actually address the total cost of the technology. And I fully agree that the cost numbers, except for the occasional mention of it costing multiple billions of dollars to cleanup West Valley,

as was mentioned in the Draft; or it's costing multiple billions of dollars to classify the waste at Savannah River Site. The issue of cost really was inadequately addressed.

So please, please go through so that the taxpayer, from whom a good portion of these promotional funds are going to be milked from, will know how much were we're being robbed.

On the issue of health, I'd liked to call to your attention two reports which -- and this is going to be the third and final impact either a supplement analysis or an EIS coming out of the DOE -- since the issuance of this ATSDR report, which is a division of the Centers for Disease Control which called Nuclear fuel Services a public health hazard and which expressed concerns. And this is something that needs to be addressed, fully addressed, especially by the DOE, with its enormous budget.

There is no excuse, I don't believe, for it's continuing to ignore the health impact of nuclear facilities in nuclear neighborhoods like Erwin. The ATSDR summary analysis -- given that there was truly a scarcity of resources -- which I compared to the DOE, I think, would be truly the case. But despite the lack of person power, they did employ, I believe, good science.

And one of the findings was that mixtures may be an issue with respect to health effects. That when you have as

in the case of Nuclear Fuel Services -- and this is true of all of these companies that are in the business of manipulating nuclear materials -- that this is, to quote the ATSDR website, which it itself quoted, was contaminants that are together in a mixture may have -- or this is to paraphrase the ATSDR -- may have compounded effects on one another.

So if you recall in your summary, early on in the summary, the radiotoxicity of the various radioactive elements that were being manipulated at various stages in GNEP were said to become a problem based upon the sum of those exposures. There was not necessarily a compounding effect or that effect -- the ATSDR -- knows whether it be the case was not considered.

So please do that, cite that report. It's out there, it's on the internet, its available. And I hope that you will study that and also go further and do a health assessment.

Newest and hot off the press -- and I thank Mary Olson's colleagues who helped to get this put together -- today was released a report called The Real Costs Of Cleaning Up Nuclear Waste. And I pointed this out to your Tetra Tech staff who are here today. That Synapse Energy Economics has now done an analysis of the life-cycle costs. So I am asking that that also be included in the GNEP

analysis.

Thank you.

MR. LAWSON: Thank you.

The next speaker is Don Richardson to be followed but Robert Kennedy.

MR. RICHARDSON: I'm Dr. Don Richardson with Western North Carolina PSR. It occurred to me that everybody who has spoken in favor of nuclear energy tonight has a vested interest in the industry. Just a note.

I'm a pathologist, a retired pathologist. In the course of my professional years I did some 700 autopsies. And it seems to me that nuclear power is in worse shape than all of those 700 bodies on those cold steel tables. Some people say it's dying. It's certainly mordant. And it's a question of: If it's on life support, when do we pull the plug? A lot has been said tonight that I might have said but I will make just a couple of more points.

The carbon footprint was mentioned. And there's a study by Yon Dalstrom von Leeuwen (phonetic) and the late Philip Smith which does an energy audit of the entire nuclear fuel cycle from exploration for uranium to the end when you had to store the waste forever. And it seemed to me, as I read that study, I got the impression that unless you use very high-grade ores, there's a question of whether you produce any net energy, which seems to me then to be a

black hole for a lot of billions of dollars.

I recommend the study. Yon Dalstrom von Leeuwen and the late Dr. Philip Smith. He's an American and von Leeuwen is a Dutchman, I think.

I think Dan Stout says that 20 percent of our electricity comes from nuclear. Electricity is about 16 percent of our total energy use. So if you do the mathematics, nuclear energy produces some three percent of our total energy use.

Now, we know that conservation can reduce our energy use by 50 percent. We can easily cut it in half. That would say to me the total would overwhelm the need for any nuclear power which produces only three percent of our total energy. That's just a simple mathematical equation.

And finally I want to say one thing. Chernobyl was mentioned and it obviously was the worst radiological accident in the history of the world. That was in 1986. In 1979 I was driving through Harrisburg, Pennsylvania, in late March, close to Three Mile Island, not knowing what was going on there. And when I got home to Northern Virginia, I turned on the television and found out that there had been some kind of an accident at Three Mile Island. And I have read reports that they were within 30 minutes, within 30 minutes, of releasing anywhere from 180 to 360 times as much radiation as was released at Chernobyl. May Dr. von Hippel

can corroborate that. That's what I read: 180 to 360 times as much release of radiation as Chernobyl. No? That's not right. Nevertheless a large release of radiation. So when they talk about safe nuclear energy obviously it's an oxymoron.

We're facing environmental holocausts on all fronts. A lot of people are reading now about tipping points, the various things that are happening on the Earth: melting ice, rising seas, changing temperatures, global warming. All of that.

This is a problem which James Hanson says has to be addressed within the next few years, which means that even if nuclear power could help, which it can, even if it could help, it would be far too late.

We need to do it now. What we need to do it with renewable energies. And renewable energies, despite all the naysayers, can easily supply all of our electric needs. Even with transmissions losses, we can do that. It can be done.

The apologists for nuclear power are fond of saying it can't be done but I think it can.

MR. LAWSON: Thank you, sir.

Our last speaker before recess is Robert Kennedy.

MR. KENNEDY: Good evening. My name's Robert Kennedy. I reside 112 Mason Lane in Oak Ridge. I serve on

the Environmental Quality Advisory Board, which advises Oak Ridge City Council and recommends policy. I'm not here to evaluate GNEP. Just to set you all straight on some facts and figures.

Point One. There is no such thing as a risk-free life or a risk-free technological choice. Doing nothing is itself is a choice. The single greatest determinant of social stability and quality of life in the world today is an ample supply of electricity in its health and security.

Looking at our correct largest energy source, coal, since the year 1800, when we first started commercially mining coal, in this country alone approximately 100,000 coal miners have been killed on the job in the course of that activity. If it were a war, it would be America's fourth largest war after the Civil War, World War II, and World War I. Coal mining has killed directly almost as many people as combat fatalities -- America combat fatalities in World War I. That does not include things like black lung disease, of which the miners died later, or dirty air and air pollution in crowded cities and other second order effects; transportation accidents. If you add that in, the total is assuredly in the low millions.

Our previous speakers made a point about nuclear not been carbon free. Well, nothing is carbon free. But a back-of-the-envelope calculation, this country consumes 100

quads of energy a year more or less. To build our nuclear fleet from scratch approximately 100 plants would require about of 12 quads of energy. And to make the fuel for those nuclear plants over their operating lifetime would require about two quads of energy. In exchange for this 14 quad energy investment you get up that 340 quads of useful high-quality electricity. So that's about a 25 to 1 payoff over the life-cycle cost of the technology. So it's in a class by itself. So it's not carbon free but the carbon load is down around four percent of the total energy picture.

Point Four. Some point has been made about petroleum has gotten cheap all of a sudden so now we don't have an energy problem. That is not true. Economist agree -- and they have been discussing this the last few weeks -- they agree that the principal cause of the recent collapse in petroleum prices is not demands destruction because the world economy has declined by maybe two or three percent; whereas petroleum has dropped almost 70 percent and continues to drop today. Demand destruction is not the cause. Petroleum is sensitive to the economy but not that sensitive. Economists agree that the principal cause of the drop in petroleum prices is that OPEC finds the incoming Obama Administration commitment to energy reform credible.

Thank you.

MR. LAWSON: Thank you.

It's been announced we were going to take a recess. However, I have one other person who would like to speak. This has been going on for the last half hour. If I had known this, I would have taken a recess sometime back.

How are you doing?

THE REPORTER: I'm fine.

MR. LAWSON: Mr. Tony Buhl. Before you come up, is there anybody else who is going to say they would like to speak?

Okay. Mr. Buhl. We're going to take these two individuals and then we'll take a recess after that.

Thank you. Did you sign up?

MR. BUHL: Thank you very much. It's indeed a privilege to see this kind of open discussion about the need for and the subject at hand.

First of all, let me say that I am a Fellow of the American Nuclear Society. I was elected to that position because of my management and research in nuclear safety and risk management.

I was the first Director of Risk Management at the Nuclear Regulatory Commission and I was also in the control room at Three Mile Island throughout the accident until the times after we turned off all the pumps.

I was also in Russia in supporting the recovery of

Chernobyl, and also supported the Soviets at that time in redesigning plants that were already constructed in Cuba; and, in fact, improving the safety of their own plants.

I was also the manager for or the leader for the Industry Degraded Core Rulemaking Program, which was the program sponsored by the United States and seven other nations to resolve with the IAEA all the issues that came out of the Three Mile Island accident.

So I have been in these accidents. I was also a member of the INPO Emergency Response Team to the accident at Crystal River in Florida which was an identical accident sequence to Three Mile Island. So I do have some background in this area.

I spent ten years shipping nuclear waste out of Rocky Flats and helping shutdown a nuclear weapons facility which is now Prairie Grass after ten years of work. I am presently shipping nuclear waste to WIPP and to our folks down in Nevada at the Nevada Test Site. So I've had some experience over the last 35 years in this business.

And what I can tell you -- having also been involved in starting up about ten nuclear power plants, I can tell you, first of all, that nuclear power is safe.

What I would like to do is make a few comments. Only one about the document itself. I think DOE has erred in adding a certain of these concepts which have already

been tested and failed. For example, Great Britain long ago decided to get out of the gas-cool reactor business and many of our folks have been involved in actually decommissioning and removing those reactors. Gas-cool reactors have not faired well. Fort St. Raine was DOE's experiment in this country, which did not work, in Colorado where I lived for 15 years.

I believe these other programmatic alternatives have been added to diminish and further defocus the original intent of the program. And I believe DOE is reliving in some of these choices the 1970s all over again when in fact I did work for the Department of Energy.

Our nation's energy security is inextricably tied to our financial security and together -- and our national energy security. Together these are pillars of our national security. You know, we can have jobs; we can grow our economy without oil; we could drive to work without oil; but we cannot have jobs without electricity.

Electricity powers this nation. Our industry, our commerce, and our very way of life relies on a reliable uninterrupted supply of affordable electricity. Energy sufficiency is a national security matter not simply a matter of policy. It's a matter of federal doctrine.

We cannot grow a 21st Century economy with conservation and renewables alone. Like many who have

spoken tonight I support fully conservation. I certainly think conservation is extremely important, renewables are extremely important, solar and wind are important.

But what we must have, as an earlier speaker said, is an embracement of, in fact, the total portfolio when electricity supply is a capital intensive and it's long-term investment centered around the few very expensive long-live components.

The recent mismanagement of our capital market should discourage any over-reliance on our market's ability to refurbish the U.S. infrastructure and energy. Our energy policy, yea our energy doctrine, must be tied to the legislative clout of national security because energy policy and our energy security is inextricably tied to our financial security and our national well-being.

Nuclear energy, when you look at reality of today in terms of the various technologies and ask yourself what's available today -- and I agree with an earlier speaker who said we can't wait for anything to get on with the carbon issue. There are many things we can do starting tomorrow. And I agree with that.

However, when you look at electricity, nuclear energy is the only double-digit solution to reduce our reliance on foreign oil. Intermittent or part-time energy sources are important and will make a contribution to the

future, but they are not going to resolve and support our national energy security and in fact our secure way of life in this country.

We must increase conservation. We must increase reliance on domestic sources. These will help in the next five to 15 years. Conservation and greater reliance on domestic sources are necessary components of a sustainable plan but they're not the only components.

Nuclear energy, as has been said many times tonight, supplies 20 percent of our nation's energy, electric energy supply. Nuclear power could easily provide 40 percent of our national energy supply within the next 30 years. Nuclear is really the only heavy-lift offset for alternative to carbon-based energy that we have. It's the only achievable solution in the next two decades.

France and Germany have charted a course to energy independence with nuclear power as a primary component of their long-term plans. We are certainly not France or Japan, although I personally have worked in both of those countries on nuclear power.

Nevertheless, in our country's interest it is instructive to explore and understand the lessons learned not only in Japan or France. But one of the recommendations I have for the Department of Energy is there needs to be a clear lessons-learned program from the shipping port reactor

to the present day on not only the regulatory but in terms of the instruction, the licensing, and operation of nuclear power plants in which one would include all of the accidents that have occurred as well, which in this country are three in nuclear plants.

Oil producing countries -- Saudi Arabia, Venezuela -- who are awash in oil are building nuclear power plants today. What does that tell us about the relative price of nuclear power? What does that tell us about the future they are planning? We must aggressively plan for a future with a complete portfolio of energy choices.

America's energy challenge must become a national doctrine in this country and not simply doctrine. There is a radical distinction. It's often said: "It's a good damn thing that electricity wasn't first used for the electric chair, otherwise we'd still be reading in our schoolhouses with candles." The same is true in the discussions I've heard tonight and hear many times across the country.

The unbelievable unexplainable reason why we as intelligent people can't separate nuclear weapons from nuclear power. They are two different things. Many of the problems that have been discussed tonight, purely nuclear weapons related. Nuclear power is a different animal.

I have been to a number of the nuclear power plants in this country, in France, in Germany, in Japan; and many

other countries: Korea, Russia, and other countries in the world. And what I will tell you, based on 35 years of experience and three degrees in nuclear energy and nuclear research, nuclear power is safe. The closed cycle makes an inordinate amount of common sense.

It's really time for all of us to come together as Americans. As we've heard in the presidential debates, come together and let's do things that make sense, which is the entire portfolio. It's not my way or your way. It's going to have to be our way.

Thank you.

MR. LAWSON: Thank you, sir.

Your name, please? Our next speaker is Frank Hensley.

MR. HENSLEY: My name is Frank Hensley and I'm speaking as a private citizen. I'm a retired machine design engineer, and for 30 years I've designed machines to make barrier equipment for the gases defusion process, centrifuge equipment, and nuclear recycling equipment. My last job was designing equipment for the Japanese recycle program.

My only interest in this project is because of the effects of global warming. Global warming is a disaster in the making. It will affect our great-grandchildren in adverse ways that we can't even imagine at this time. We need to stop using on an emergency basis carbon-based fuels

and replace them with nuclear and renewable resources.

On the question of reprocessing, as described in this EIS, DOE has been negligent in not considering the experience of other countries: Japan, Russia, England, France, and so on. How much high-level waste is produced? How much liquid waste is produced? How much does recycling cost? Where is the cost-benefit analysis?

If we are to analyze this document in a rationale manner, DOE needs to pull it back and redo it to considered the complete picture.

Thank you.

END OF PUBLIC COMMENTS

MR. LAWSON: Thank you, sir.

Maybe it's a time for an executive decision. I don't believe I've saw any other hands that people are going to speak. We're now past 9:30. My guess is that there is a very small chance that anyone else is going to come in the door. I'm thinking that maybe instead of calling a recess we will adjourn the meeting. So I shall do so.

But before I do, I want to thank you very much for coming, all of you who came tonight and especially the people who spoke. I thought a lot of thought and work went into the presentations that were made no matter what the side or point of view was.

I certainly appreciated listening to it and I'm sure

it was very helpful to DOE. So thank you very much for that.

I would at this point then just say that we'll conclude the public hearing. I want to note that you can continue to send in your comments. We heard earlier that the December 16th deadline will probably be extended and we don't know when that will be, but I would guess it's will be at least 30 days. That's January sixteenth. And I think you can keep track on the website as to how that's going to evolve.

I also want to thank Ms. McConnell for her work as our reporter tonight. She went a little longer in one stretch than I had planned and I appreciate that very much.

I also remind you that there are comment sheets that are available, I suspect, outside in the hallway. So if you want to take one of those in case you have some thoughts after the meeting you are able to send them in.

Mr. Stout, do you have any final comments?

MR. STOUT: It was great input. I really want to thank everybody.

MR. LAWSON: Well, thank you very much for attending. And certainly free to talk to the staff when you leave.

Thank you. This meeting is now adjourned.

PUBLIC MEETING ADJOURNED at 10:00 P.M.

C E R T I F I C A T E

STATE OF TENNESSEE)
COUNTY OF KNOX)

I, JIMMIE JANE McCONNELL, CLA, CCR(TN), Court Reporter and Notary Public in and for the County of Knox, State of Tennessee at Large, do hereby certify that the public hearing held for the United States Department of Energy on the Draft Global Nuclear Energy Partnership (GNEP) Programmatic Environmental Impact Statement (PEIS) held in Oak Ridge, Tennessee, was reported by me and the 2nd day of December, 2008; that the transcript provided herein is a true and accurate transcript of that public hearing to the best of my knowledge, skills, and ability.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal this 15th day of December, 2008.

_____

Jimmie Jane McConnell, CLA, CCR #0219
Court Reporter and Notary Public
My Commission Expires: 05/09/12.